

Low-coherence light is guided by a first single mode fiber, the base position of a second single mode fiber of an optical scanning probe side is detachably connected to the end portion of the first single mode fiber, and by rotating the second single mode fiber together with a pipe-shaped member using a rotation driving device, the guided light is irradiated into a subject via a prism which changes the optical scanning direction at the tip portion, the returning light is guided, and interference is employed to extract the light components of an optical path length matching the optical path length according to a variable-length optical path length mechanism. Any offset between the fiber ends is resolved at the time of connecting, and the are pressed together as with a spring, thereby securing the optical connection state thereof.